REMARKS

This communication is a full and timely response to the non-final Office Action dated August 8, 2005 (Paper No./Mail Date 20050807). By this communication, claims 20-30, 32, 34-40, and 42-48 have been amended and claims 49-51 have been added.

Claims 20-30, 32, 34-40, and 42-48 have been amended to address formal matters. No new matter has been added.

Claim 31 has been amended to recite relative moving means for enabling the polished surface of said polishing object and the polishing surface of said polishing tool to move along a predetermined plane relative to each other. Support for the subject matter added to claim 31 can be found variously throughout the specification for example at paragraph [0078] of corresponding U.S. Patent Application Publication No. 2005-0016960. No new matter has been added.

Each of claims 49 and 50 recite relative moving means further enabling selectively removing a passivation film on a projecting portion of the polishing surface of said polishing tool. Support for the changes to claim 19 can be found variously throughout the specification, for example, at paragraphs [0169] and [0170] of corresponding U.S. Patent Application Publication No. 2005-0016960. No new matter has been added.

Claim 51 recites selectively removing a passivation film on a projecting portion projected from the polishing surface of said polishing tool in said metal film by mechanical polishing by said polishing tool. Support for the changes to claim 19 can be found variously throughout the specification, for example, at paragraphs [0169] and [0170] of corresponding U.S. Patent Application Publication No. 2005-0016960. No new matter has been added.

Claims 19-51 are pending where claims 19, 31, 33, and 41 are independent.

Rejections Under 35 U.S.C. §102

Claims 19-48 were rejected under 35 U.S.C. §102(a) as anticipated by *Uzoh et al.*—U.S. Patent No. 5,911,619. Applicant respectfully traverses this rejection.

Claim 19 recites a polishing apparatus comprising a polishing tool having a polishing surface and having conductivity; a polishing tool rotating and holding means for rotating said polishing tool about a predetermined axis of rotation and holding the same; a rotating and holding means for holding a polishing object and rotating the same about a predetermined axis of rotation; a movement and positioning means for moving and positioning said polishing tool to

a target position in a direction facing said polishing object; a relative moving means for making the polished surface of said polishing object and the polishing surface of said polishing tool relatively move along a predetermined plane; an electrolyte feeding means for feeding an electrolyte onto the polished surface of said polishing object; and an electrolytic current supplying means for supplying an electrolytic current flowing through said polishing tool through said electrolyte from said polished surface by using the polished surface of said polishing object as an anode and said polishing tool as a cathode.

Claim 31 recites a polishing apparatus which comprises a polishing tool having a polishing surface which contacts the entire surface of the polished surface of the polishing object while rotating and which brings said polishing object into contact with said polished surface while rotating it so as to flatten and polish the same, said polishing apparatus comprising an electrolyte feeding means for feeding an electrolyte onto said polishing surface, an anode electrode and a cathode electrode capable of supplying electric power to the polished surface of said polishing object in said polishing surface, and relative moving means for enabling the polished surface of said polishing object and the polishing surface of said polishing tool to move along a predetermined plane relative to each other, said polishing apparatus flattening and polishing flattens and polishes the polished surface of said polishing object by electrolytic composite polishing which combines electrolytic polishing by said electrolyte and mechanical polishing by said polishing surface.

Claim 33 recites a polishing method including the steps of pushing the polishing surface of a conductive polishing tool and the surface of the polishing object with a metal film formed on at least the surface or an inner layer against each other while interposing the electrolyte therebetween; supplying the electrolytic current flowing from the surface of said polishing object to said polishing tool through said electrolyte by using said polishing tool as a cathode and the surface of said polishing object as an anode, making said polishing tool and said polishing object move relatively along a predetermined plane while rotating the two; and flattening the metal film formed on said polishing object by electrolytic composite polishing combining electrolytic polishing by the electrolyte and mechanical polishing by the polishing surface.

Claim 41 recites a polishing method including the steps of forming a passivation film exhibiting a function of preventing an electrolytic reaction of the metal film at the surface of the metal film formed on the polishing object; pushing the polishing surface of a conductive polishing tool and a metal film against each together while interposing an electrolyte between

the polishing surface and the metal film, and then applying a predetermined voltage between said polishing tool and said metal film; making the polishing surface of said polishing tool and the metal film of said polishing object move relatively along a predetermined plane and selectively removing a passivation film on a projecting portion projected from the polishing surface of said polishing tool in said metal film by mechanical polishing by said polishing tool; and removing a projecting portion of the metal film exposed at the surface due to the removal of said passivation film by the electrolytic polishing function by said electrolyte and flattening said metal film.

In summary, each of claims 19 and 31 recite a polishing apparatus comprising among other things relative moving means for enabling the polished surface of said polishing object and the polishing surface of said polishing tool to move along a predetermined plane relative to each other. Furthermore, claim 33 recites a polishing method that includes, among other things, the step of making said polishing tool and said polishing object move relatively along a predetermined plane while rotating the two, and claim 41 recites a polishing method that includes among other things the step of making the polishing surface of said polishing tool and the metal film of said polishing object move relatively along a predetermined plane.

Uzoh discloses an apparatus that planarizing a layer of a workpiece by rotating the layer against an electrolytic polishing slurry and flowing an electrical current through the slurry. *See* Abstract. The apparatus 60 includes among other things a rotatable workpiece carrier 66 and a means for urging the carrier 66 against a pad 64. *See* col. 5, lines 41-50.

Uzoh, however, fails to disclose, teach, or suggest at least a polishing apparatus comprising among other things relative moving means for enabling the polished surface of said polishing object and the polishing surface of said polishing tool to move along a predetermined plane relative to each other, as recited in claims 19 and 31; a polishing method that includes, among other things, the step of making said polishing tool and said polishing object move relatively along a predetermined plane while rotating the two, as recited in claim 33; and a polishing method that includes among other things the step of making the polishing surface of said polishing tool and the metal film of said polishing object move relatively along a predetermined plane, as recited in claim 41. At best, *Uzoh* discloses that the workpiece can be rotated and urged against a pad. *Uzoh* does not contemplate a structural element or process step that can achieve the results of the claim 19, 31, 33, and 41 as evidenced by the aforementioned claim elements.

To properly anticipate a claim, the document must disclose, explicitly or implicitly, each and every feature recited in the claim. *See* Verdegall Bros. v. Union Oil Co. of Calif., 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). *Uzoh* fails to disclose, teach, or suggest every element recited in independent claims 19, 31, 33, and 41, therefore these claims are not anticipated by *Uzoh*. Accordingly, Applicant respectfully requests that the rejection of claims 19, 31, 33, and 41 under 35 U.S.C. §102 be withdrawn, and these claims be allowed.

Claims 20-30 depend from claim 19, claim 32 depends from claim 31, claims 34-40 depend from claim 33, and claims 42-48 depend from claim 41. By virtue of this dependency, Applicant submits that claims 20-30, 32, 34-40, and 42-48 are allowable for at least the same reasons given above with regard to their respective base claims. In addition, Applicant submits that claims 20-30, 32, 34-40, and 42-48 are further distinguished over *Uzoh* by the additional elements recited therein, and particularly with respect to each claimed combination. Applicant respectfully requests, therefore, that the rejection of claims 20-30, 32, 34-40, and 42-48 under 35 U.S.C. §102 be withdrawn, and these claims be allowed.

Newly Added Claims

Claim 49 depends from claim 19 and additionally recites that said relative moving means further enables selectively removing a passivation film on a projecting portion of the polishing surface of said polishing tool. By virtue of at least its dependency from claim 19, Applicant respectfully submits that claim 49 is allowable. In addition, however, Applicant respectfully submits that the applied art fails to disclose, teach, or suggest the element recited in claim 49 and the resulting claim combination. Accordingly, Applicant respectfully requests that claim 49 be considered and allowed.

Claim 50 depends from claim 31 and additionally recites that said relative moving means further enables selectively removing a passivation film on a projecting portion of the polishing surface of said polishing tool. By virtue of at least its dependency from claim 31, Applicant respectfully submits that claim 50 is allowable. In addition, however, Applicant respectfully submits that the applied art fails to disclose, teach, or suggest the element recited in claim 50 and the resulting claim combination. Accordingly, Applicant respectfully requests that claim 50 be considered and allowed.

Claim 51 depends from claim 33 and additionally recites selectively removing a passivation film on a projecting portion projected from the polishing surface of said polishing

tool in said metal film by mechanical polishing by said polishing tool. By virtue of at least its dependency from claim 33, Applicant respectfully submits that claim 51 is allowable. In addition, however, Applicant respectfully submits that the applied art fails to disclose, teach, or suggest the element recited in claim 51 and the resulting claim combination. Accordingly, Applicant respectfully requests that claim 51 be considered and allowed.

Conclusion

Based on at least the foregoing amendments and remarks, Applicant submits that claims 19-51 are allowable, and this application is in condition for allowance. Accordingly, Applicant requests a favorable examination and consideration of the instant application. In the event the instant application can be placed in even better form, Applicant requests that the undersigned attorney be contacted at the number listed below.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. SON-1908/DIV from which the undersigned is authorized to draw.

Dated: October 21, 2 005

Respectfully submitted,

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